

NOTE

*Solenonotus angustatus* Poppius, a Synonym of  
*Dufouriellus ater* Fieber (Hemiptera: Heteroptera: Anthocoridae)

*Solenonotus angustatus* was described from southern California in 1913 by Poppius. The female type was collected in "Mts. near Claremont, Cal." by Baker. This species has puzzled Anthocoridae workers since the genus *Solenonotus* was described by Reuter (1871) from Brazil based upon *Anthocoris sulcifer* Stål (1860) from "Rio Janeiro." Van Duzee (1916, 1917) reported *S. angustatus* from California as did Henry (1988), both following Poppius. Champion (1900) reported *Solenonotus sulcifer* from Brazil, Colombia, and Panama; described *S. canaliculatus* from Guatemala and Panama and *S. nigromarginatus* from Guatemala and Panama; and illustrated *S. sulcifer* and *S. nigromaculatus*—both very different than *Dufouriella ater* (Dufour), being broadly oval and not slender and straight-sided (see Champion 1900, figs. 30, 31). Carpintero et al. (1997) reported *S. nigromarginatus* from Nicaragua. The type specimen of *Solenonotus angustatus* could not be located. A. Jansson reported the type was not in the Helsinki Museum (personal communication, April 2000). It was assumed that Poppius returned the type to Baker in California. The Baker Collection was transferred to the California Academy of Science some years ago. V. Lee was unable to locate the specimen in the collections of the California Academy of Sciences (personal communication, 14 April 2000). He reported the specimen might have been sent to the National Museum in Washington, D.C. T.J. Henry stated that he could not find the type in the collections of the National Museum of Natural History (personal communication, September 2001). H.M. Harris worked on the Anthocoridae many years ago and left his collections to Louisiana State University and

Iowa State University. Both institutions reported the specimen was not to be found in their holdings.

A thorough review of the original description by Poppius ultimately led to an identification of the species before him as *Dufouriellus ater* (Dufour). Although Poppius indicated that the individual resembled species of the genus *Scoloposcelis* Fieber in general shape, small size (not stated), and flattened, narrowly elongate body, it differed by the unarmed fore femora—a distinctive character of *Scoloposcelus*. He placed the species in *Solenonotus* Reuter, a genus that occurs in South America and portions of Central America—well removed from semi-arid southern California. *Solenonotus angustatus* differs substantially in size from species of *Scoloposcelis* species—length 2.00 mm versus 2.80–3.64 mm. Further, species of *Scoloposcelis* have distinct ostiolar canals—curved parallel-sided and round apically (see Kelton 1978, fig. 73), while *S. angustatus* has the canal straight and the surrounding area flattened, curved anteriorly with a sharp apex (see *Dufouriellus ater*, Kelton 1978, fig. 75).

Characters cited by Poppius for *S. angustatus* included the elongate shape, narrow body shape, strongly flattened, shiny body, only a few long setae on the head, sides pronotum and hemelytra; color brownish black and membrane brownish black, pale white on basal half. Second antennal segment slightly thickened apically, pale at the middle, tibiae pale; rostrum reaching anterior coxae, segment one almost reaching anterior edge of eye. Pronotum shining, sides straight, narrowly emarginate, disc smooth without transverse impression, with a distinct, longitudinal impression down the middle. Scutellum

smooth. Membrane of hemelytron with four veins, inner three veins obscure, inner two parallel to one another. All legs unarmed, anterior femora slightly enlarged. These characters are exactly what one finds on *Dufouriellus ater*. Additional characters from specimens examined included small, but well-developed apical pads (*fossa spongiosa*) on the anterior tibiae of the male and small, but poorly developed apical pads on the anterior tibiae of the female (see Carayon 1972 for discussion of this character). One should mention the considerable discrepancy in the width of *S. angustatus* Poppius as published. The length was given as 2.0 mm and the width as 1.6 mm. This creates a strongly oval shape, quite different than the small, narrowly parallel-sided description Poppius gave in the text. It seems likely that the 1 before 0.60 was in error. I have measured the width of 11 specimens of *D. ater* from California and Oregon and the width varies from 0.60–0.74 mm—certainly *not* 1.6 mm. The California specimens varied from 0.60–0.72 mm. The Oregon specimens varied from 0.71–0.74 mm. Kelton (1978: 56) cited length at 1.20–2.24 mm, width 0.70–0.84 mm (males) and length 2.10–2.24 mm, and width 0.70–0.84 mm (females). Péricart (1972: 276) reported length as 1.80–2.30 mm in Europe. By comparison, Kelton (1978) reported the length of *Scoloposcelis flavicornis* Reuter as 2.80–3.50 mm and width 0.87–1.12 mm (males and length 3.15–3.64 mm and width 0.81–1.05 mm (females). Péricart (1972) stated the length of *Scoloposcelis pulchella* (Zetterstadt) as 2.80–3.50 mm and width 0.90–1.10 mm, and similar dimensions for *Scoloposcelis obscurella* (Zetterstadt). *Dufouriellus ater* may be recognized by the small size (2.00–2.24 mm length, 0.60–0.84 mm width), flattened shape, narrow, parallel-shaped body, fuscous color, polished dorsum, obsolete punctures; pronotum with distinct median groove; fuscous, anterior wing membrane fuscous, basal half pale; unarmed fore femora, fore tibiae with a small, but distinct

apical pad; and distinct ostiolar canal. On the basis of information given above, *Solenonotus angustatus* Poppius 1913 is considered a synonym of *Dufouriellus ater* (Dufour) 1833 (**new synonym**).

*Dufouriellus ater* is a Palearctic species that has been introduced into North America. Van Duzee (1916) first reported it from the Eastern States and subsequently from California (1917). This subcortical species is also found in stored products. Blatchley (1934) collected this species under the bark of deciduous trees in the Los Angeles area of California in the winter of 1927–28. Cobben (1958) described the habits of this bug in the Netherlands. Carayon (1972) provided structural and systematic information and Péricart (1972) gave a complete description of its structure, distribution and habits, and later (1996) published on the distribution of this species in the Palearctic. Kelton (1978) published a description, distribution map in Canada, figure of the male clasper, electromicrograph of the scent gland opening, and an illustration of the adult. Awadallah et al. (1984) published a brief paper on the nymphs and developmental time in the laboratory in Egypt where it was considered a potential predator of stored-product insects. Arbogast (1984) provided a detailed study of the demography of the species under laboratory conditions in Georgia, where it was associated with stored products. Henry (1988) reported *D. ater* from British Columbia, California, Idaho, Kentucky, North Carolina, New York, and Ontario, to which I add Oregon. Maw et al. (2000) reported it from British Columbia and Ontario. Lattin (1999, 2000) discussed a variety of attributes in the Old and New World.

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